



## Bachelor of Engineering (Honours)/Bachelor of Data Science (Domestic students)

Program code	Entry requirements	Prerequisites
1611	70.00	NIL
Available at		Assumed knowledge
Gold Coast Campus	ATAR/RANK 2024 ( <a href="#">more</a> )	Any General or Applied English subject (Units 3 and 4, C)
Duration	Commencing in	Mathematical Methods (Units 3 and 4, C)
5 years full-time 10 years part-time	Trimester 1 and Trimester 2	
Credit points		
400		
Indicative fee		
\$8,500.00* per year ( <a href="#">more</a> )		
* 2024 indicative annual CSP fee		

### About this program

As factories and other engineering environments transform into an industrial Internet of Things, the ability to analyse vast quantities of data to extract relevant intelligence is an increasingly and highly sought-after skill.

Data science provides a broad knowledge of the exploration, gathering, manipulation, visualisation, automation and interpretation of data using digital platforms and can be applied to enable real-time performance optimisation.

This double degree will enable you to provide data-based insights based on your specific expertise in engineering, to improve decision-making, reduce costs and increase efficiencies.

You'll gain knowledge in your chosen engineering major and skills to access the insights large data sets provide and lead the way in translating data into actionable information including manipulation, modelling, interpretation and visualisation, using a range of digital platforms and tools.

In your final year, you can enhance your employability through an industry placement to gain practical experience and valuable industry networks.

You'll also graduate with a degree accredited by the national engineering body (Engineers Australia) and be fully equipped to work in local, national and international sectors.

#### Engineering majors (offered at the Gold Coast)

- Civil Engineering
- Electrical and Electronic Engineering
- Mechanical Engineering
- Software Engineering

### My attendance during the program

#### Attendance information

The Bachelor of Engineering (Honours)/Bachelor of Data Science is available full-time and part time on-campus at the Nathan and Gold Coast campuses. The program includes some Trimester 3 core courses.

#### Student Income Support

To be classed as a full-time student, you are required to enrol in a minimum number of credit points each standard study period. The minimum credit points for full-time enrolment in this program is 30 credit points.

Trimester 1 and Trimester 2 are deemed standard study periods. As Trimester 3 is a non-standard study period, continuing students moving from one year to the next will not be required to study during this trimester to be eligible for student income

support.

Domestic students who commence in Trimester 3 may be eligible for student income support from the onset of study provided they are enrolled full-time in this study period.

Please refer to the [Australian Government website](#) for more details.

## My career opportunities

### My career opportunities

#### Civil Engineering

Civil engineers provide a major contribution to society by supporting the design and development of essential services, and by managing and improving the built environment. Demand for civil engineering professionals has grown and is expected to continue to be an area of high demand. You could find employment in jobs such as chief civil engineer, construction engineer, municipal engineer, structural engineer, transport engineer, water supply distribution engineer, project manager and consulting engineer.

#### Electrical and Electronic Engineering

Electrical devices reach into all aspects of our lives in the form of heating and cooling, lighting and power, communications and computing, entertainment and information systems. As a graduate you will be prepared to work in any of these areas. Electrical and electronic engineers work with senior administrators, civil and mechanical engineers, computer scientists and various workers in the business, building and construction industries. The essential nature of an electrical engineers' role places them in the position to influence the development and application of new and emerging technologies. This includes the fast-growing energy industry. You could work to incorporate locally generated renewable energy resources into our more conventional supply systems, helping to reduce costs, save energy and alleviate global warming. Electrical and electronic engineering is a career for people who want to make a difference.

#### Mechanical Engineering

Mechanical engineering is the most diverse of all the engineering disciplines, which means you will be able to use your skills in a variety of avenues including design, research, development or production. As a graduate, you will be qualified for a career in medical, automotive, aerospace, renewable energy, marine and sports-related sectors. Not all engineering graduates work as engineers - the transferrable skills and methodology developed through your degree provide a springboard to any career where critical thinking, the ability to analyse and investigate new information and evidenced-based decision making are valued.

#### Software Engineering

As a graduate, you will be prepared for a career in software development and be equipped to meet the demands of the rapidly changing software industry. You will find employment as a software architect, software developer, software engineer, software tester, IT project manager, systems analyst, security specialist, computational scientist, programmer, networking and communications specialist, and in research and development. Not all engineering graduates work as engineers - the transferrable skills and methodology developed through your degree provide a springboard to any career where critical thinking, the ability to analyse and investigate new information and evidenced-based decision making are valued.

#### Data Science

Never have we collected so much data about absolutely everything. From things that happen naturally, like climate change or the birth of galaxies, to all the social businesses, individual movements, corporate decisions and human activities. The data is there for its exploitation by machine learning technology, big data, data mining and other artificial intelligence technologies that coupled with traditional statistical analysis enable to produce insights into the future. Nothing is more valuable than anticipation, and data scientists are finding jobs in multiple disciplines.

## What are the fees?

### Commonwealth supported students

- The indicative fee represents the expected average fee for an annual full-time study load (80 credit points). This is based on average study patterns across courses and the Australian Government's broad discipline areas (student contribution bands). A student's actual annual fee may vary in accordance with his or her choice of majors and electives. The Australian Government sets student contribution amounts on an annual basis.
- [Find out more...](#)

### Fee-paying undergraduate (domestic) students

These fees are only applicable to domestic students who are not Commonwealth supported including:

- Full-fee paying domestic students who commenced their program prior to 2009.
- International students who have been approved to pay domestic tuition fees after obtaining Australian or New Zealand citizenship or permanent residency or a permanent humanitarian visa and who have not obtained a Commonwealth supported place.

#### Tuition fees

- A fee-paying undergraduate student pays tuition fees.
- Students are liable for tuition fees for the courses they are enrolled in as at the census date.

- The tuition fee is charged according to the approved program fee for the trimester in which the student is enrolled.
- [Find out more...](#)

#### **FEE-HELP**

Eligible undergraduate fee-paying students may defer their tuition fees by taking out a FEE-HELP loan which is part of the Higher Education Loan Program (HELP). Payment of the loan is via the taxation system when income reaches a specified level.

- [Higher Education Loan Program \(HELP\)](#)

#### **Further information**

- [Calculating tuition fees](#)
- [Calculating your EFTSL](#)
- [Fees and Charges Procedure](#)
  - [3.2 - Fees for Undergraduate Students \(Non-international\)](#)
  - [Fees and Charges Schedules](#)
- [Financial help and support](#)

#### **Additional fee information**

##### **Additional costs**

Throughout your program you may be required to pay for the following items:

- personal protective equipment; steel-cap boots required for some site visits